



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Ref.: : LT 2/7.2.109/SA420

3 July 2006

To: Mr. Jean-Marc Sansovini, Directeur Regional de l'Aviation Civile aux Antilles et en Guyane
cc: Mrs. Isabelle Monnier, Chef du Service de la Navigation Aérienne Antilles-Guyane
Mr. Chabeenan Ramphul, Director General, Guyana Civil Aviation Authority
Ms. Marlene M.L.M. Harris, Permanent Secretary, Ministry of Transport, Communications and Tourism, Suriname
Mr. John Veira, Director, Civil Aviation

cc: Mr. Dominique Dago, Chef du Service Meteorologique de Guyane
cc: Mr. Dilip Jaigopaul, Chief Hydrometeorological Service
cc: Mr. Cornelis R. Becker, Director, Meteorological Service

Mr. Peter Cerdá, IATA
Mr. Patricio Sepúlveda, IATA
Mrs. Carole Couchman, IFALPA
Mr. Iván Darío Gómez, IFALPA
Mr. Alvaro Quiroga Verhaaf, IFALPA
Eng. Carlos Casaccia, WMO, The Americas

From: ICAORD, Lima

Subject: Approval of Proposal for amendment of the ICAO CAR/SAM Air Navigation Plan (Doc 8733), Volume I, Basic ANP (Serial No. SAM 06/02-MET)

Dear Sir,

I have the honour to inform you that the President, on behalf of the Council, approved on 26 June 2006, the attached proposal for amendment of the ICAO CAR/SAM Air Navigation Plan (Doc 8733), Volume I, Basic ANP, Serial No. SAM 06/2-MET.

The material concerned will be implemented as soon as practicable.

The approved amendment will be incorporated in the next consolidated amendment to be issued to the CAR/SAM Air Navigation Plan.

Likewise, please be informed that the referred proposal for amendment, as well as the proposal of ANP FASID, Serial No. SAM 06/3-MET, have been placed at ICAO SAM Office website: www.lima.icao.int under eDocuments, General (GEN), CAR/SAM Air Navigation Plan.

Accept, Sir, the assurances of my highest consideration.

Original signed by

José Miguel Ceppi
Regional Director
South American Office
Lima

Subject: Proposal for amendment of the CAR/SAM Air Navigation Plan (Doc 8733), Volume I, Basic ANP (Serial No. SAM 06/2-MET)

a) **Plan:** CAR/SAM Air Navigation Plan, Volume I - Basic (Doc 8733)

b) **Proposal for amendment:**

1. **Replace** the text of Part VI – Meteorology of the CAR/SAM Air Navigation Plan (Doc 8733), Volume I – Basic, by the one included in **Appendix A** to this Proposal for Amendment.

c) **Originated by:** Second Meeting of the WAFS Operations Group, the Second Meeting of the IAVW Operations Group and the Thirteenth Meeting of GREPECAS.

d) **Originator's reasons for amendment:**

1. The WAFS Operations Group (WAFSOPSG/2), Bangkok, Thailand, 8 to 11 March 2005, reviewed and updated the global regional procedures, which would render them compatible with Annex 3 provisions and agreed, under Conclusion 2/2, to delete the requirement for forecasts in chart form of upper wind and temperature. The Group also agreed that SIGWX forecasts in the BUFR code should remain at FL 630.

2. The IAVW Operations Group, during its second meeting (IAVWOPSG/2), Lima, Peru, 26 to 30 September 2005, reviewed and updated the global regional procedures, which would render them compatible with Annex 3 provisions and agreed, under Conclusion 2/2, to introduce the requirement for information on volcanic activity, a volcanic eruption and/or volcanic ash in the atmosphere from selected State volcano observatories and the related new FASID Table MET 3C which sets out the responsibilities of direct notification of the special information to the corresponding area control centres (ACC), meteorological watch offices (MWO) and volcanic ash advisory centres (VAAC).

3. The Thirteenth CAR/SAM Regional Planning and Implementation Group (GREPECAS/13), Santiago, Chile, 14 to 19 September 2005, reviewed the procedures for the CAR/SAM Regions, which would render them compatible with Annex 3 and formulated Conclusion 13/31 a) in order to make a consolidated amendment of Part VI Meteorology of the CAR/SAM Air Navigation Plan (Doc 8733), Vol. I, Basic.

e) **Date proposed for implementation:**

After the approval of the President of the ICAO Council, on behalf of the Council.

f) **Proposal circulated to the following States/Territories and Organizations:**

Anguilla (R.U.)
Antigua and Barbuda
Argentina

Aruba (K. of the Netherlands)
Bahamas
Barbados

Belize	Panama
Bermuda (UK)	Paraguay
Bolivia	Peru
Brazil	Portugal
Canada	Puerto Rico (United States)
Canary Islands (Spain)	Saint Kitts and Nevis
Cape Verde	Saint Lucia
Cayman Islands (UK)	Saint Vincent and the Grenadines
Chile	Senegal
Colombia	South Africa
Costa Rica	Spain
Cuba	Suriname
Dominica	Trinidad and Tobago
Dominican Republic	Turks and Caicos Islands (UK)
Ecuador	United Kingdom
French Antilles (France)	United States
France	Uruguay
French Guiana	Virgin Islands (UK)
El Salvador	Virgin Islands (United States)
Gambia	Venezuela
Ghana	
Grenada	Brasilia OPMET data bank (Brazil)
Guatemala	Vienna OPMET data bank (Austria)
Guyana	ISCS (United States)
Haiti	SADIS (United Kingdom)
Honduras	
Italy	International organizations:
Jamaica	
Mexico	IATA
Montserrat (UK)	IFALPA
Nicaragua	WMO
Netherlands Antilles	
Netherlands, K. of the	COCESNA

g) **Comments by the Secretariat:**

The Secretariat supports the proposed amendment to Part VI - MET of the CAR/SAM ANP (Doc 8733), Vol I, Basic, as a follow-up to WAFSOPSG/2 Conclusion 2/2, IAVWOPSG/2 Conclusion 2/2 and GREPECAS/13 Conclusion 13/31.

Part VI

METEOROLOGY (MET)

Basic

INTRODUCTION

1. This part of the CAR/SAM Basic Air Navigation Plan contains elements of the existing planning system and introduces the basic planning principles, operational requirements and planning criteria related to aeronautical meteorology (MET) as developed for the CAR/SAM Regions and considered to be the minimum necessary for effective planning of MET facilities and services. A detailed description/list of the facilities and/or services to be provided by States in order to fulfill the requirements of the Basic ANP is contained in the CAR/SAM Facilities and Services Implementation Document (FASID). During the transition and pending full implementation of the future CNS/ATM systems, it is expected that the existing requirements will gradually be replaced by the new CNS/ATM related requirements. Further, it is expected that some elements of the CNS/ATM systems will be subject to amendment, as necessary, on the basis of experience gained in their implementation.

2. The Standards, Recommended Practices and Procedures to be applied are contained in Annex 3 C *Meteorological Service for International Air Navigation*.

3. Background information of importance in the understanding and effective application of the plan is contained in the *Report of the Third Caribbean/South American Regional Air Navigation Meeting* (Doc 9749), supplemented by information appropriate to the CAR/SAM Regions which is contained in the reports of the other regional air navigation meetings.

4. RAN meeting recommendations or conclusions, CAR/SAM Regional Planning and Implementation Group (GREPECAS) conclusions and ICAO operations groups conclusions shown in brackets below a heading indicate the

origin of all paragraphs following that heading. RAN Meeting recommendations or conclusions, GREPECAS conclusions and ICAO operations groups conclusions shown in brackets below a paragraph indicate the origin of that particular paragraph.

METEOROLOGICAL SERVICE REQUIRED AT AERODROMES AND REQUIREMENTS FOR METEOROLOGICAL WATCH OFFICES (FASID Tables MET 1A and MET 1B).

5. The service to be provided at international aerodromes listed in the Appendix to Part III of the Basic CAR/SAM ANP is set out in FASID Table MET 1A. [CAR/SAM/3, Rec. 7/7]

6. The service to be provided for flight information regions (FIRs), upper flight information regions (UIRs), control areas (CTAs) and search and rescue regions (SRRs) is set out in FASID Table MET 1B. [CAR/SAM/3, Rec. 7/7]

7. Hourly routine observations should be made at all aeronautical meteorological stations, to be issued as local routine reports and METAR, together with special observations to be issued as local special reports and SPECI. [GREPECAS Conclusion 13/31 a)]

8. Aerodrome forecasts should be issued as TAF normally at intervals of 6 hours, with the period of validity beginning at one of the main synoptic hours (00, 06, 12, 18 UTC). The period of validity should be of 24 hours duration, to meet the requirements indicated in FASID Table MET 1A. The filing time of the forecasts should be approximately two hours before the start of the period of validity. [GREPECAS Conclusion 12/65]

9. The forecast maximum and minimum temperature together with their respective times of occurrence should be included in TAF for certain aerodromes as agreed between the meteorological authorities and the operators concerned. [GREPECAS Conclusion. 13/31 a)]

10. Trend forecasts should be provided at the aerodromes as indicated in FASID Table MET 1A. [CAR/SAM/3, Rec. 7/7]

11. Meteorological service should be provided on a 24-hour basis, except as otherwise agreed between the meteorological authority, the air traffic services authority and the operators concerned. [CAR/SAM/3, Rec. 7/7]

12. At aerodromes with limited hours of operation, METAR should be issued at least [1] hour prior to the aerodrome resuming operations to meet pre-flight and in-flight planning requirements for flights due to arrive at the aerodrome concerned as soon as it is opened for use. Furthermore, TAF should be issued with adequate periods of validity so that they cover the entire period during which the aerodrome is open for use. [GREPECAS Conclusion 13/31 a)]

13. When a meteorological watch office (MWO) is temporarily not functioning or is not able to meet all its obligations, its responsibilities should be transferred to another MWO and a NOTAM should be issued to indicate such a transfer and the period during which the office is unable to fulfil all its obligations. [CAR/SAM/3, Rec. 7/7]

14. Details of the service provided should be indicated in Aeronautical Information Publications in accordance with the provisions of Annex 15. [CAR/SAM/3, Rec. 7/7]

15. As far as possible, English should be among the languages used in meteorological briefing and consultation. [CAR/SAM/3, Rec. 7/7]

16. FASID Tables MET 1A and MET 1B should be implemented as soon as possible, in the understanding that only those parts of the briefing and documentation called for in column 7 of FASID Table MET 1A that are required for current operations need to be available, and that the implementation of new MWO or changes to the area served by existing MWO indicated in FASID Table MET 1B, columns 1 and 3 respectively, should take place coincidentally with the implementation of, or changes to, the

FIR/UIR/CTA/SRR concerned. [CAR/SAM/3, Rec. 7/7]

AIRCRAFT OBSERVATIONS AND REPORTS (FASID Table MET 1B)

17. The meteorological authority should adopt the approved list of ATS/MET reporting points, as it relates to points located within and on the boundaries of the FIR for which the State is responsible. Those ATS/MET reporting

points should be published in the Aeronautical Information Publication (AIP), under GEN 3.5.6 C *Aircraft reports*, of the State concerned. [CAR/SAM/3 Rec. 7/13]

Note. C The approved list of ATS/MET reporting points is published and kept up to date by the ICAO Regional Offices concerned, on the basis of consultations with ATS and MET authorities in each State and the provisions of Annex 3 in this respect.

18. The meteorological watch office (MWO) designated as the collecting centre for air-reports received by voice communications within the FIR/UIR for which they are responsible, is shown in FASID Table MET 1B, Column 1. [CAR/SAM/3 Rec. 7/13]

SIGMET AND AIRMET INFORMATION (FASID Tables MET 3A, MET 3B and MET 3C)

19. The period of validity of SIGMET messages should not exceed 4 hours. In the special case of SIGMET messages for volcanic ash cloud and tropical cyclones, the validity period should be extended up to 6 hours and an outlook should be added giving information for an additional period of up to 12 hours, concerning the trajectory of the volcanic ash cloud and positions of the centre of the tropical cyclone, respectively. [IAVWOPSG, Conclusion 1/1]

20. In order to assist MWOs in the preparation of the outlook included in SIGMET messages for tropical cyclones, tropical cyclone advisory centre (TCAC) Miami has been designated to prepare the required advisory information and disseminate it to the MWOs concerned in the CAR/SAM Regions. FASID Table MET 3A sets out the area of responsibility, the periods of operation of the TCAC and the MWOs to which the advisory information should be sent. Advisory information should be issued for those tropical cyclones in which the surface wind speed averaged over 10

minutes is expected to equal or exceed 63 km/h (34 kt).
[GREPECAS, Conclusion 10/41 c)]

21. In order to assist MWOs in the preparation of the outlook included in SIGMET messages for volcanic ash, volcanic ash advisory centres (VAACs) Buenos Aires and Washington have been designated to prepare the required advisory information and disseminate it to MWOs and ACCs concerned following notification/detection of the ash cloud. FASID Table MET 3B sets out the area of responsibility of the VAACs, and the MWOs and ACCs to which the advisory information should be sent.

[IAVWOPSG, Conclusion 1/1]

22. In order for the VAACs to initiate the monitoring of volcanic ash from satellite data and the forecast of volcanic ash trajectories, MWOs should notify the relevant VAAC immediately on receipt of information that a volcanic eruption has occurred or volcanic ash has been observed in the FIR for which they are responsible. In particular, any special air-reports of pre-eruption volcanic activity, a volcanic eruption or volcanic ash cloud, received by MWOs should be transmitted without delay to the VAAC concerned. Selected State volcano observatories have been designated for direct notification of significant pre-eruption volcanic activity, a volcanic eruption and/or volcanic ash in the atmosphere to their corresponding ACC, MWO and VAAC. FASID Table MET 3C sets out the selected State volcano observatories and VAACs, MWOs and ACCs to which the notification should be sent by the observatories.

[IAVWOPSG, Conclusion 1/1, Conclusion 2/2]

23. AIRMET messages are not required to be issued by MWOs.

[CAR/SAM/3, Rec. 7/7]

EXCHANGE OF OPERATIONAL METEOROLOGICAL INFORMATION (FASID Tables MET 2A and MET 2B)

International OPMET data banks

24. The International OPMET data banks in Brasilia Washington have been designated to serve States in the CAR/SAM Regions to access OPMET information, which is required but not received.

[GREPECAS Conclusion. 13/31 a)]

Exchange of —METAR, SPECI and TAF

25. METAR, SPECI and TAF which should be available at meteorological offices, area control centres and flight information centres is contained in FASID Table MET 2A.

This table should be updated, as necessary, by the ICAO Regional Offices concerned on the basis of changes in the pattern of aircraft operations and in accordance with the Statement of Basic Operational Requirements and Planning Criteria, in consultation with those States and international organizations directly concerned.

[CAR/SAM/3, Rec. 8/3]

26. The exchanges indicated in FASID Table MET 2A should be implemented as soon as possible to meet the requirements of current aircraft operations. The availability at meteorological offices of the required OPMET information should be reviewed continuously. Any changes in this respect (i.e. additional OPMET information needed or OPMET information no longer required) should be notified to the corresponding meteorological authority which, in turn, should amend its corresponding address lists and inform the ICAO Regional Offices.

[CAR/SAM/3, Rec. 8/3]

Exchange of SIGMET information and air-reports

27. The exchange requirements for SIGMETs and special air-reports are contained in FASID Table MET 2B. This table should be updated, as necessary, by the ICAO Regional Offices concerned on the basis of changes in the pattern of aircraft operations, and in accordance with the Statement of Basic Operational Requirements and Planning Criteria, and in consultation with those States and international organizations directly concerned.

[CAR/SAM/3, Rec. 8/3]

28. Each MWO should arrange for the transmission to all aerodrome meteorological offices within its associated FIR of its own SIGMET messages and relevant SIGMET messages for other FIRs, as required for briefing and, where appropriate, for flight documentation.

[CAR/SAM/3, Rec. 7/7]

29. Each MWO should arrange for the transmission to its associated ACC/FIC of SIGMET messages and special air-reports received from other MWOs.

[CAR/SAM/3, Rec. 7/7]

30. Each MWO should arrange for the transmission of routine air-reports received by voice communications to all meteorological offices within its associated FIR. Special air-reports which do not warrant the issuance of a SIGMET should be disseminated by MWO in the same way as SIGMET messages, in accordance with FASID Table MET 2B.

[CAR/SAM/3 Rec. 7/13]

WORLD AREA FORECAST SYSTEM (WAFS)

(FASID Tables MET 5, MET 6 and MET 7)

31. FASID Table MET 5 sets out the CAR/SAM Regions requirements for WAFS forecasts to be provided by WAFC Washington.

[WAFSOPSG, Conclusion 1/2]

32. The levels for which forecasts of SIGWX in chart form are to be provided by the WAFC Washington and the areas to be covered by these charts are indicated in FASID Table MET 5.

[WAFSOPSG, Conclusion 1/2]

Note.- WAFCs will continue to issue forecasts of SIGWX in chart form until 30 November 2006.

33. FASID Table MET 6 sets out the responsibilities of WAFCs London and Washington for the production of WAFS forecasts. For back-up purposes, each WAFC should have the capability to produce WAFS forecasts for all the required areas of coverage.

[WAFSOPSG, Conclusion 1/2]

34. The projection of the WAFS forecasts in chart form and their areas of coverage should be as indicated in FASID Charts MET 4, MET 5 and MET 6 associated with FASID Table MET 6; their scale should be $1:20 \times 10^6$, true at 22.5° in the case of charts in the Mercator projection, and true at 60° latitude in the case of charts in the polar stereographic projection.

[WAFSOPSG, Conclusion 1/2]

Note.- WAFCs will continue to issue forecasts of SIGWX in chart form until 30 November 2006.

35. WAFS products should be disseminated by WAFC Washington using the international satellite communications system (ISCS1) covering the reception area shown in FASID Chart CNS [4].

[WAFSOPSG, Conclusion 2/2]

36. The amendment service to the SIGWX forecasts issued by WAFCs London and Washington should be by means of amended BUFR files disseminated through ISCS1.

[WAFSOPSG, Conclusion 1/2]

37. Each State should make the necessary arrangements to receive and make full operational use of WAFS products disseminated by WAFC Washington. FASID Table MET 7 lists the authorized users of the ISCS1 satellite broadcast in the CAR/SAM Regions and location of the operational VSATs.

[WAFSOPSG, Conclusion 1/2]
